Deriving Fragments*

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Abstract

The present article examines the nature of three kinds of fragments in Japanese: sluicing, short answers to *wh*-questions, and stripping. We attempt to show that the asymmetries with respect to island-sensitivity of these three kinds of fragments are to be accounted for in terms of the different ways in which the fragments are derived: sluicing and *wh*-fragment answers are derived by Overt QR and deletion, while stripping is derived by Focus Movement by Spell-Out, followed by Deletion. This accounts for the contrast with respect to island-sensitivity. This analysis has a further consequence that island-repair, a crucial notion employed by Merchant (2004) to account for the island-insensitivity of sluicing in English and other languages, is not a viable device to account for the relevant phenomena in Japanese.

1. Asymmetries in fragments

1.1 Introduction

The main theme of the present article is the derivation of the three types of fragments or elliptical processes in Japanese: sluicing, short answers to *wh*-questions, and fragments derived by stripping. While fragments derived by stripping are sensitive to island effects such as the relative clause island constraint, sluicing and short answers to *wh*-questions are free from such island effects.

The main idea that we are going to explore in the present article is that the asymmetries with respect to fragments are to be accounted for in terms of the different ways in which the fragments are derived: sluicing and *wh*-fragment answers are considered as phonological reduction, where deletion takes place to the output of Overt QR (or scrambling), while stripping is derived by Focus Movement followed by deletion.

In the derivation of sluicing and short *wh*-answers, Focus Movement takes place in the covert syntax. This accounts for the contrast with respect to island-sensitivity, as we will see shortly. This analysis has a further consequence that island-repair, a crucial notion employed by Merchant (2004) to account for the island-insensitivity of sluicing in English and other languages, is not a viable device to account for the relevant phenomena in Japanese.

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1.2 Fragments in Japanese

The following example indicates that fragments in Japanese are subject to the relative clause island.

(1) Keisatu-wa [Mari-ni itazura-denwa-sita otoko]-o taiho-sita.
police-Top Mari-Dat phony-phone-made man-Acc arrest-Past
*Hitomi-ni ∅-mo da.
Hitomi-Dat also be
'The police arrested the man who made obscene calls to Mari, and to Hitomi, too.'

We consider this type of fragments as instantiating stripping Merchant (2004), a descriptive term to designate a fragment construction (and/or its derivation) arising from focus movement followed by deletion.

While the judgment is by no means clear, sluicing as seen in the following example is quite high in acceptability to a number of speakers, including myself.[1]

(2) Keisatu-wa [dareka-ni itazura-denwa-sita otoko]-o taiho-sita ga,
police-Top someone-Dat phony-phone-made man-Acc arrest-Past but
boku-wa dare-ni ka kiite i-nai.
I-Top who-Dat Q hear be-Not
'The police arrested the man who made obscene calls to someone, but I haven't heard to whom.'

I find this sentence quite acceptable on the interpretation on which the second conjunct (involving sluicing) is paraphrased by the following.

(3) ...boku-wa keisatu-ga [dare-ni itazura-denwa-sita otoko]-o taiho-sita ka
I-Top police-Nom who-Dat phony-phone-made man-Acc arrest-Past Q
kiite i-nai.
hear be-Not
'Lit. I haven't heard to whom$_i$ the police arrested the man who made obscene calls to t_i.'

I acknowledge that there are speakers who do not accept (2) on the interpretation (3). We'll discuss the reason for this later on.

Further, the following example indicates that a fragment answer to a *wh*-question is insensitive to the relative clause island.

(4) A. Keisatu-wa [dare-ni itazura-denwa-sita otoko]-o taiho-sita no?
police-Top who-Dat phony-phone-made man-Acc arrest-Past Q
'Did the police arrest the man who made obscene calls to who?'
B. Hitomi-ni ∅ desu.
Hitomi-Dat Cop
'To Hitomi.'

Thus, what we have observed so far suggests that fragments in Japanese are not monolithic and there are at least two kinds: those which are related with *wh*-questions, viz. short answers to *wh*-questions and those which arise from stripping. Short answers to *wh*-questions are congenial with sluicing in that they are insensitive to the relative clause island.

[1] Fukaya and Hoji (1999) find these examples low in acceptability.

(5) Derivation of
$$\left\{\begin{array}{ll} \text{fragments via stripping} & \text{is sensitive} \\ \text{fragment answers to } wh\text{-questions} & \text{is insensitive} \\ \text{sluicing} & \text{is insensitive} \end{array}\right\} \text{to islands.}$$

In the next sections, we will present our analysis of sluicing, short *wh*-answers, and stripping.

2. Sluicing as phonological reduction

In developing our theory of sluicing, the idea presented in Ishihara (2004) about the correspondence between intonation (PF entity) and scope (LF structure) involving *wh*-phrases and constructions plays a crucial role. The next subsection briefly presents Ishihara (2004).

2.1 Ishihara (2004): Focus Intonation-*Wh*-Scope Correspondence

Ishihara (2004) develops a theory that attempts to capture the significant correspondence between focus intonation (a PF phenomenon) and scope (LF structure) involving *wh*-constructions in Japanese.

Drawing on work by Maekawa (1991), Ishihara (2004) characterises the intonation pattern involved in *wh*-constructions in (Tokyo) Japanese as in the following.

(6) *Focus Intonation (FI) in Japanese*

a. **P(rosodic)-focalization**
The F_0 peak of a narrowly focused phrase is raised.

b. **Post-FOCUS reduction (PFR)**
The F_0 peaks of the material after the P-focalized phrase are lowered.

The intonation pattern of the following simple *wh*-question illustrates FI.

(7)
Naoya-ga na ni-o nomiya-de nonda no?
Naoya-Nom what-Acc bar-Loc drank Q
'What did Naoya drink at the bar?'

The effect of FI is characterized by (i) the F_0 peak of the *wh*-phrase (P-focalized phrase) is raised, and (ii) the portion following the *wh*-phrase is lowered until the sentence-final interrogative particle (=PFR). Also, there is a slight rise in pitch at the interrogative particle.

The idea of PFR is stated in terms of "eradication" in Deguchi and Kitagawa (2002), where it is defined as "when one or more of lexical accents follow an emphatic accent, their H tones (H*) are all suppressed." (p.74.)

In the case of an indirect *wh*-question, the PFR stops at the end of the embedded clause, where the Q-particle *ka* appears.

(8)
Naoya-wa [Mari-ga na ni-o nomiya-de nonda ka] oboeteiru.
Naoya-Top Mari-Nom what-Acc bar-Loc drank Q remember
'Naoya remembers what Mari drank at the bar.'

At the end of the embedded clause, a pitch reset occurs, so that the portion after the embedded clause exhibits clear F_0 peaks. Deguchi and Kitagawa (2002) refer to this prosodic pattern as Short EPD (Emphatic Prosody).

These observations and considerations lead Ishihara (2004) to the following generalization concerning the LF-PF correspondence:

(9) *Focus Intonation–Wh-scope Correspondence (FI=WH)*
The domain of FI corresponds to the scope of a *wh*-question.

Ishihara (2004) argues that this correspondence is a consequence of the cyclic computation of syntax, where the syntactic operation *Spell-Out* (transferring syntactic derivation to PF) takes place at each phase in a cyclic manner, although it's by no means clear whether the relevant examples support the cyclic output analysis, in light of the derivations with long distance dependency. Cf. footnote 2.

Ishihara (2004) assumes that the creation of FI is induced by Focus feature [+F] interpreted at PF. Crucially to my view, *wh*-phrases do not carry [+F] until they are assigned [+F] by the relevant C (Q-particles), at the point where C is merged to the derivation.

(10) *FOCUS feature assignment by C*
$[_{CP}[_{TP} \ldots \mathrm{WH}_{[+F]} \ldots]\ \mathrm{C}\ ]$

This assignment of [+F] by WH must be allowed to take place over long distance, for a *wh*-phrase can appear in an embedded clause yielding a matrix *wh*-question. (Ishihara's (2004) (3b).)

(11)
Naoya-wa [Mari-ga na-ni-o nomiya-de nonda to] omotteru no?
Naoya-Top Mari-Nom what-Acc bar-Loc drank that remember Q
'What does Naoya think that Mari drank at the bar?'

This prosodic pattern is what Deguchi and Kitagawa (2002) refer to as Long EPD. On Ishihara's (2004) analysis, at the embedded CP phase cycle, no Focus assignment takes place, since the relevant C is not merged to the derivation yet, and hence no FI is created as output to PF.[2] At the matrix CP phase cycle, a Q-particle is merged as the matrix C, which assigns [+F] to the *wh*-phrase in the embedded clause. Thus the *wh*-phrase is P-focalized, and the PFR or eradication applies to everything after the *wh*-phrase.

In order for this long-distance assignment of [+F] not to be in violation of the Phase Impenetrability Condition (PIC) Chomsky (2000, etc.) we must hypothesize that some kind of movement takes place so that the *wh*-phrase in the embedded clause is moved to a higher position. I suggest that this movement, which might be called Overt QR, is assimilated to scrambling, in this case adjunction to the embedded TP.

(12) $[_{CP}[_{TP} \ldots [_{CP}[_{TP}\ \mathrm{WH}_{[+F]}[_{TP} \ldots (\mathrm{WH}) \ldots]]\ \mathrm{C}\ ] \ldots]\ \mathrm{C}\ ]$

If the *wh*-phrase is adjoined to TP that is the complement domain of C, it is contained by only one segment of TP, and is thus is no longer in the complement domain of the lower C and hence is accessible from a higher head.[3] I further suggest that Overt QR may be 'invisible' in the sense that it forms a chain of which either the head or the tail may be pronounced. This is necessary, since the scope of the *wh*-phrase is widened even if the *wh*-phrase is pronounced in the in-situ position.

[2] Nor is the *wh*-phrase properly interpreted on this phase cycle. There must be some way of 'postponing' the checking of the *wh*-feature at LF until a C with proper features is merged into the derivation. Otherwise, the relevant sentences with long distance dependency will crash at an early phase cycle.

[3] Ishihara (2005) reformulates Ishihara's (2004) Foc-assignment in terms of Agree. Ishihara (2005, fn. 15) claims that movement relevant here is *wh*-movement targeting SpecCP.

2.2 Sluicing as reduction

Notice at this point that, in all the cases in which we observed the effect of PFR or eradication so far could we have applied deletion to the same portion over which PFR applied, and the result would have been fairly close to sluicing.

Take (8), which we repeat here, for example.

(8)
Naoya-wa [Mari-ga na ni-o nomiya-de nonda ka] oboeteiru.
Naoya-Top Mari-Nom what-Acc bar-Loc drank Q remember
'Naoya remembers what Mari drank at the bar.'

If we apply deletion on the portion over which PFR applies in (8), we get the following.

(13) Naoya-wa [Mari-ga nani-o ~~nomiya-de nonda~~ ka] oboeteiru.
Naoya-Top Mari-Nom what-Acc bar-Loc drank Q remember

This is not exactly what we want, since there is a constituent to the left of the *wh*-phrase undeleted.

If we conceive of deletion in the relevant case as an operation deleting TP except the constituent bearing [+F], we get the following, which gives us a right example of sluicing.

(14) Naoya-wa [$_{CP}$ [$_{TP}$~~Mari-ga~~ nani-o ~~nomiya-de nonda~~] ka] oboeteiru.
Naoya-Top Mari-Nom what-Acc bar-Loc drank Q remember

While PFR reduces F_0 peaks of everything to the right of [+F] in a domain D, deletion deletes D except [+F].

Although PFR is stated with reference to the portion following the P-focalized item (the *wh*-constituent), the portion to the left of the P-focalized item is also reduced in pitch or deleted (as a null pronoun), especially in contexts where the relevant sentence is preceded by a sentence like:

(15) Mari-ga nani-ka-o nomiya-de nonda ga
Mari-Nom something-Acc bar-at drink-Pst but
'Mari drank something at the bar, but . . . '

Viewed this way, reduction in pitch and deletion leading to sluicing have the identical domain for their application. Since both the operations are conceived as phonological processes, they need not have syntactic constituents as their target.

If Overt QR, suggested at the end of section 2. 1, takes place prior to Spell-Out within TP in (14), this (non)-constituency issue evaporates. Then, we can delete the remnant of movement, a constituent to the right of the moved element.

(16) $WH_i[_{TP} \ldots t_i \ldots]$

Crucially, this movement may not target SpecFP which I will argue in section 4. is the landing site for movement that occurs in the derivation of stripping in overt syntax.[4]

The idea that deletion must target a maximal domain available, not just the portion to the right of the focalized element as stated for PFR, has been expressed in various ways, e.g. Kuno

[4] As we will see below, in all the cases where sluicing is acceptable that we consider in the present article, scrambling is also acceptable.

(1980), and the idea has been reformulated in the form of MaxElide in the current literature — e.g. Takahashi and Fox (2005).

Also, the idea that deletion has properties parallel with reduction (or deaccenting) has been widespread—cf. e.g. Tancredi (1992), Fiengo and May (1994), among others.

One piece of supporting evidence for viewing sluicing as a phonological process comes from Saga dialect, an unaccented dialect spoken in Kyushu. (Information supplied by Toshio Hidaka, a speaker of this dialect.) *Wh*-questions in Saga dialect do not exhibit FI — neither is the *wh*-constituent P-focalized (the pitch of the *wh*-phrase is not raised), nor is the portion immediately following the *wh*-phrase reduced in pitch. That is to say, the effect of PFR does not obtain in Saga.

Now, according to Toshio Hidaka, sluicing is generally low in acceptability in Saga. If this observation is correct, the facts are consistent with the analysis being developed here — the absence of FI correlates with the unacceptability of sluicing, for we are essentially claiming that sluicing is a case of FI.

2.3 Island-insensitivity of sluicing

The analysis of sluicing in Japanese outlined in the previous subsection claims that movement which we call Overt QR, identifiable as scrambling, is involved in the derivation of sluicing. This movement is almost free from island constraints, as is scrambling in quite a few cases, so it is expected that sluicing does not exhibit the strong effects of the relative clause island.

The status of examples like (2), which we repeat here, is correlative with the status of Overt QR out of the relative clause island.

(2) Keisatu-wa [dareka-ni itazura-denwa-sita otoko]-o taiho-sita ga,
police-Top someone-Dat phony-phone-made man-Acc arrest-Past but
boku-wa dare-ni ka kiite i-nai.
I-Top who-Dat Q hear be-Not
'The police arrested the man who made obscene calls to someone, but I haven't heard to whom.'

Let us see how the derivation of sluicing proceeds. The portion relevant to sluicing in (2) is the following.

(17) [$_{CP}$[$_{TP}$Keisatu-ga [dare-ni itazura-denwa-sita otoko]-o taiho-sita] ka],
police-Nom who-Dat phony-phone-made man-Acc arrest-Past Q
boku-wa kiite i-nai.
I-Top hear be-Not
Lit. 'The police arrested most of the men who made obscene calls to who, I haven't heard.'

As in Ishihara's (2004) analysis, Q-particle *ka*, which occupies C, assigns [+F] to the *wh*-phrase as soon as it enters the derivation, but in order for this assignment to take place, the *wh*-phrase has to move by Overt QR to be adjoined to the matrix TP, otherwise the assignment will not work, due to the PIC.

(18) ?[$_{CP}$[$_{TP}$Dare-ni [$_{TP}$keisatu-ga [(dare-ni) itazura-denwa-sita otoko]-o taiho-sita]] ka],
who-Dat police-Nom who-Dat phony-phone-made man-Acc arrest-Past Q
boku-wa kiite i-nai.
I-Top hear be-Not
Lit. 'The police arrested most of the men who made obscene calls to who, I haven't heard.'

Then, FI is created as output to PF: the *wh*-phrase is P-focalized, and the PFR applies to the portion after the *wh*-phrase within TP, lowering the F_0 peaks of everything up to the Q-particle. We continue to suppose that either the head or the tail of the chain formed by Overt QR may be pronounced.

In fact, this sentence, with the higher copy of the *wh*-phrase pronounced, is quite high in acceptability, which shows that this particular instance of scrambling is tolerated by Subjacency, although its acceptability varies depending on individual speakers. Cf. footnote 4.

Notice once again that this movement is not focus movement to SpecFP, which I will argue in section 4. is constrained by Subjacency. This is in consonance with Ishii (1997), who argues that A′-movement, of which focus movement to SpecFP is an instantiation, is subject to stricter constraints than scrambling. I will also argue in section 4. that the immediate result of focus movement to SpecFP is never visible in Japanese except by subsequent application of topicalization of the remnant clause (clefting) or deletion of the remnant clause (stripping). Thus the following cleft construction, derived via focus movement, is very low in acceptability, markedly lower than the acceptability of (18).

(19) *Keisatu-ga [t_i itazura-denwa-sita otoko]-o taiho-sita no wa
police-Nom phony-phone-made man-Acc arrest-Past Comp Top
dare-ni$_i$ desu ka?
who-Dat be Q
'To whom was it that the police arrested the man who made obscene calls?'

The difference in island-sensitivity between Overt QR and Focus Movement lies in the nature of the two processes: while Focus Movement is a feature-driven movement, Overt QR is motivated by the inherent nature of *wh*, which 'opts for' a wider domain of interpretation—Overt QR takes place because of the necessity on the part of the *wh* to be outside the lower domain in which it was introduced into the derivation, to be accessible from the higher C head for the assignment of [+F]. Then, on the assumption that Subjacency is a constraint on feature-driven movement, the (near-)island-insensitivity of Overt QR can be attributed to its nature as movement driven by the nature of the element undergoing it.

Thus, instead of PFR, one could delete TP except the *wh*-phrase bearing [+F], and the result we get at PF is sluicing.

(20) [$_{CP}$ [$_{TP}$Dare-ni [$_{TP}$~~keisatu-ga~~ [~~(dare-ni)~~ ~~itazura-denwa-sita~~ ~~otoko]-o~~ ~~taiho-sita]]~~ ka],
who-Dat police-Nom phony-phone-made man-Acc arrest-Past Q
boku-wa kiite i-nai.
I-Top hear be-Not
Lit. 'The police arrested (the) man who made obscene calls to who, I haven't heard.'

Interestingly, the acceptability of (20), the result of sluicing, is more or less on a par with the status of (18) whose acceptability judgments vary depending on the speaker.

After Spell-Out, the *wh*-phrase moves to (some layer(s) of) the matrix CP to get its *wh*-feature and [+F] feature checked. In order to do so, movement has to legitimately cross the relative clause island. This is consistent with the view widely held since Huang (1982) that Subjacency is a condition on movement in overt syntax. In fact, if one assumes Overt QR applies before Spell-Out as in (20), movement to SpecFP in covert syntax from the position occupied by *dare-ni* 'who-Dat' in (20) does not even involve a Subjacency violation.

Thus, our claim in the present analysis is that island-repair in the sense of Merchant (2004), Fox and Lasnik (2003), etc. is not a viable device in the derivation of relevant examples. Of particular interest here is the fact that the acceptability of (18) and that of (20) do not differ conspicuously, which means that deletion as seen in (20) does not radically improve the acceptability of the mild violation as seen in (18). We will discuss this matter at length in section 6..

It might be pointed out that, granted that (2) is acceptable (which some speakers might dispute, as we have repeatedly pointed out), it might be what Merchant (2001) calls pseudo-sluicing, whose source is something like (21), with its subject *sore* 'it' vaguely referring to the circumstance, which does not involve connectivity with the preceding sentence. Cf. Saito (2004) as well.

(21) Sore-ga dare-ni ka
it-nom who-Dat Q

This can indeed be the source of sluice in (2), but I believe this is not the only source of sluice in (2). To see that connectivity can be involved in relevant sentences, consider the following, a slightly modified version of (2).

(22) Keisatu-wa [dareka-ni itazura-denwa-sita otoko]-o hotondo taiho-sita ga,
police-Top someone-Dat phony-phone-made man-Acc mostly arrest-Past but
boku-wa dare-ni ka iti-iti kiite i-nai.
I-Top who-Dat Q one by one hear be-Not
'The police arrested most of the men who made obscene calls to someone, but I haven't heard to whom one by one.'

It is possible to interpret the sluice in (22) distributively—the men arrested had made obscene calls to different people, and I haven't heard who these guys called individually. If this judgment is correct, the scopal relation in the antecedent clause is preserved in sluicing, which we can take as a hallmark of connectivity. Notice that this interpretation is not available if the sluiced portion in (22) is replaced by (21), a case of pseudo-sluicing. This only allows an interpretation on which the guys called the same person.

Further, (22) can be followed by the following.

(23) Soitu-no imooto-ni rasii.
the guy-Gen sister-Dat it seems
'Apparently, to his sister.'

The pronominal *soitu* can be understood as a variable bound by the men who made obscene calls in (22). This gives us a functional interpretation Hornstein (1995), Chierchia (1991), another hallmark of connectivity, which indicates that (22) is derived by deletion.[5]

[5]Takita (2009) attempts to show island-repair effects of sluicing using examples utilizing sloppy identity. Unfortunately, the examples offered by Takita to demonstrate island-repair effects of sluicing with sloppy identity are unacceptable to me.

Now, there is still another derivation in which Q-particle of the matrix clause C assigns [+F] to the entire relative clause containing the *wh*-phrase.

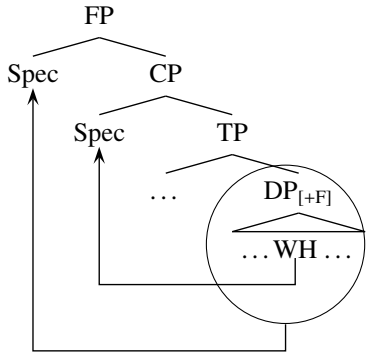
(24) [$_{CP}$[$_{TP}$Keisatu-ga **[$_{[+F]}$dare-ni itazura-denwa-sita otoko]-o** taiho-sita] ka],
police-Nom who-Dat phony-phone-made man-Acc arrest-Past Q
boku-wa kiite i-nai.
I-Top hear be-Not
Lit. 'The police arrested (the) man who made obscene calls to who, I haven't heard.'

If we apply deletion to delete TP except the portion bearing [+F], the result at PF is an alternative form of sluicing.

(25) [$_{CP}$[$_{TP}$~~Keisatu-ga~~ **[$_{[+F]}$dare-ni itazura-denwa-sita otoko]-o** ~~taiho-sita~~] ka],
police-Nom who-Dat phony-phone-made man-Acc arrest-Past Q
boku-wa kiite i-nai.
I-Top hear be-Not
Lit. 'The police arrested (the) man who made obscene calls to who, I haven't heard.'

After Spell-Out, if the entire relative clause island can be identified as a *wh*-phrase, as hypothesized in Nishigauchi (1986, 1990), the entire relative clause moves to the matrix CP to get its *wh* and [+F] features checked at LF. Alternatively, the *wh*-phrase moves out of the relative clause to get its *wh*-feature checked, and the (remnant) relative clause moves to SpecFP to get its [+F] checked. It is this latter approach that I am going to develop in the present study.

(26)



The intonation pattern of sentences like (24) has never been discussed in the literature (as far as I know), and awaits some experimental investigation. My hunch tells that an intonation pattern exists such that the relative clause containing the *wh*-phrase forms a 'high plateau', so each lexical item in the relative clause receives a relatively high pitch (the *wh*-phrase being higher among them), followed by reduced pitch after the relative clause up to the Q-particle.[6]

[6] Michinao Matsui (p.c.) observes that such an intonation pattern may be realized in such a way that the relative clause starts out with high pitch, followed by gradual lowering until the end of the relative clause, at which there is a slight rise in pitch on the postposition following the relative clause.

3. Deriving short *wh*-answers

3.1 Short *wh*-answers

In this subsection, we will develop a new analysis of short *wh*-answers, such as the following.

(27) a. Naoya-wa nani-o nomiya-de non-da no?
Naoya-Top what-Acc bar-at drink-Past Q
'What did Naoya drink at the bar?'

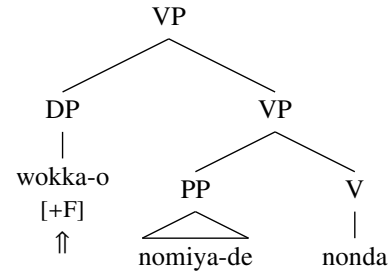
b. Wokka(-o) desu.
vodka-Acc Cop
'(He drank) Vodka.'

I essentially follow Merchant (2004) in hypothesizing that fragment answers (or some species of them) are derived by deletion at PF. I further hypothesize that there is some significant relation of 'parallelism' between a question and its answer(s), not only in semantic content but also in syntactic structure. This line of idea I believe can be embodied by the hypothesis that at least some answers are 'copies' of their corresponding question sentences. By this I mean that an answer sentence is built with its corresponding question sentence as its model.

One way of making this idea specific would be to say that the Numeration of the question sentence is copied as that of the answer sentence, except the *wh*-constituent, which is replaced by an expression filling in the value of the *wh*-phrase. That is the answer constituent. As the *wh*-phrase is replaced by a non-*wh*-constituent, the organization of the C-projections will also be replaced by [–Q,–WH].

When the derivation of the answer sentence hits the point at which a constituent must be introduced into the derivation which corresponds to a *wh*-constituent in the corresponding question sentence, a constituent that serves as an answer filling in the value of the *wh*-phrase is merged with the structure constructed up to that point, and that constituent is assigned [+F], presumably in the Numeration.

(28)



While the *wh*-constituent in the corresponding question sentence is assigned [+F] derivationally by the interrogative Q-particle, the answer constituent is assigned [+F] by virtue of being an expression replacing the *wh*-constituent in the corresponding position in the question.

The answer sentence thus created is a focus construction ending in *no da* Hiraiwa and Ishihara (2002, 2010), with the [+F] feature assigned to the constituent replacing the *wh*-constituent in the corresponding question sentence. The assignment of [+F] to the answer constituent yields the same FI effect as we observed in *wh*-questions in the pronunciation of the resulting sentence.

(29)
(Naoya-wa) wok ka-o nomiya-de nonda no desu.
Naoya-Top vodka-Acc bar-Loc drank C Cop
'Naoya drank **vodka** at the bar.'

This answer sentence is pronounced with P-focalization on the answer constituent, everything else in the sentence being pronounced with reduced pitch, in keeping with FI.

Alternatively, continuing to hypothesize, as we did in the subsection on sluicing, that deletion is possible on the portions that undergo reduction of pitch in FI, we might delete the clause, or TP, except the constituent marked [+F] as in the following.[7]

(30) ~~Naoya-wa~~ wokka-o$_{[+F]}$ ~~nomiya-de~~ ~~non-da~~ ~~no~~ desu.
Naoya-Top vodka-Acc bar-at drink-Past C Cop
'~~He drank~~ vodka ~~at the bar~~.'

Continuing to hypothesize that Overt QR takes place so that the answer constituent is moved to the edge of TP, just as its *wh*-counterpart is, the target of deletion is now a constituent. Cf. footnote 4. Again, this is not focus-movement targeting SpecFP.

(31) Wokka-o$_{[+F]}$ ~~Naoya-wa~~ ~~nomiya-de~~ ~~non-da~~ ~~no~~ desu.
vodka-Acc Naoya-Top bar-at drink-Past C Cop
'~~He drank~~ vodka ~~at the bar~~.'

This gives us a short answer to the *wh*-question identical to the one we see in (27). The constituent assigned [+F] must move covertly to SpecFP for its checking. This leads us to the discussion on the locality issue.

3.2 Island-(in)sensitivity of short *wh*-answers

In this subsection, we consider a dialogue like (4), in which the short answer derives from a position inside the relative clause.

(4) A. Keisatu-wa [dare-ni itazura-denwa-sita otoko]-o taiho-sita no?
police-Top who-Dat phony-phone-made man-Acc arrest-Past Q
'Did the police arrest the man who made obscene calls to who?'

B. Hitomi-ni ∅ desu.
Hitomi-Dat Cop
'To Hitomi.'

If we continue to hypothesize that short *wh*-answers derive via deletion in such a way that TP containing the answer constituent is deleted except the answer constituent, which is assigned [+F] by virtue of being in the position corresponding to that of the *wh*-phrase in the 'original' *wh*-question sentence, we get the short answer as indicated in the following:

(32) ~~Keisatu-wa~~ [Hitomi-ni$_{[+F]}$ ~~itazura-denwa-sita~~ ~~otoko]-o~~ ~~taiho-sita~~ ~~no~~ desu.
police-Top Hitomi-Dat phony-phone-made man-Acc arrest-Past C Cop
'The police arrested the man who made obscene calls to Hitomi.'

[7] Some questions remain about the status of *no*, if it is the head of C as in Hiraiwa and Ishihara (2002, 2010). One possibility is to assume that *no* originates as part of the T system before deletion applies. Another possibility is *no* is deleted on morphological grounds, if the predicate preceding it is deleted. In fact, *no* can remain if it is 'supported' by *na*, which I suspect is a variant of the copula originating in the T system—*X na-n(o) desu* 'It is X,' although its usage is pragmatically constrained.

Once again, if one moves the focus constituent to the edge of the matrix TP by scrambling, one can get a constituent, viz. the (remnant of the) matrix TP, as target of deletion.

(33) Hitomi-ni$_{[+F]i}$ [$_{TP}$~~keisatu-wa~~ [t_i ~~itazura-denwa-sita otoko]-o taiho-sita~~] ~~no~~ desu.
Hitomi-Dat police-Top phony-phone-made man-Acc arrest-Past C Cop
'The police arrested the man who made obscene calls to Hitomi.'

In fact, the result of scrambling, (33) with the struck-out portion undeleted is quite high in acceptability. Subsequently, the constituent assigned [+F] undergoes covert movement to SpecFP to get its [+F] checked. Movement out of the relative clause is permitted, given that Subjacency is a condition on overt syntax.

Alternatively, we observed in our analysis of sluicing that the entire relative clause containing the *wh*-constituent can be assigned [+F] derivationally by Q-particle, as in (24).

(34) Keisatu-wa **[$_{[+F]}$dare-ni itazura-denwa-sita otoko]-o** taiho-sita no?
police-Top who-Dat phony-phone-made man-Acc arrest-Past Q
Lit. 'The police arrested (the) man who made obscene calls to who?'

An answer sentence to (34) must have [+F] in the corresponding position, so that the relative clause containing the answer constituent is assigned [+F], on our hypothesis that the derivation of an answer sentence is a copy of that of the corresponding question sentence.

(35) Keisatu-wa **[$_{[+F]}$Hitomi-ni itazura-denwa-sita otoko]-o** taiho-sita no desu.
police-Top who-Dat phony-phone-made man-Acc arrest-Past C Cop
'The police arrested (the) man who made obscene calls to Hitomi.'

Our analysis anticipates that this answer sentence has an intonation pattern distinct from that of (32) without deletion in that the entire relative clause receives high pitch (a 'high plateau'), with reduced pitch on the portion immediately following until the copula at the end of the sentence, and I believe that such an intonation pattern exists. Cf. footnote 6.

Further, the portions pronounced with reduced pitch in (35) can be deleted in PF.

(36) ~~Keisatu-wa~~ **[$_{[+F]}$Hitomi-ni itazura-denwa-sita otoko]-o** ~~taiho-sita~~ ~~no~~ desu.
police-Top who-Dat phony-phone-made man-Acc arrest-Past C Cop
'The police arrested (the) man who made obscene calls to Hitomi.'

This is effected on our analysis by deleting the whole TP except the answer constituent with [+F] feature. Nishigauchi (1986, 1990) argues that not-so-short answers such as (36) are obtained from a *wh*-question sentence in which the relative clause containing the *wh*-constituent undergoes movement, an operation known in the literature as 'large-scale pied-piping at LF.'

3.3 Short vs. Not-so-short answers

In the analysis proposed by Nishigauchi (1986, 1990), short answers such as (4B) were claimed to derive from not-so-short answers such as (36) by deletion. The idea behind this is that the 'direct' derivation of short answers like (4B) involves a violation of Subjacency, which Nishigauchi (1986, 1990) considers to be an inviolable condition at any level of syntactic derivation.

Thus, Nishigauchi's ((1986, 1990)) analysis proceeds in such a way that (i) answers reflect the syntactic and semantic (LF) structures of the *wh*-question sentences in such a way that a short answer represents the value filling in the *wh*-operator obtained in LF of the question sentence, so that (ii) in order to derive a short answer such as (4B), it is only possible to derive

a not-so-short answer like (36) to fill in the value of a question sentence in which the relative clause containing the *wh*-phrase has moved to SpecCP (large scale pied-piping) and then make it short by a 'discourse deletion rule'.

The assumption here is that short answers like (4B) and not-so-short answers like (36), which is considered to be the source in the formation of the short answer, are synonymous. Now, in what follows, I am going to show that this assumption is not warranted, which implies that short answers and not-so-short answers derive through separate processes. In fact, we will see that their source structures are phonologically distinct.

This argument is based on the cyclic nature of movement to SpecFP, so let us start with the basic observation about this nature.

THE CYCLIC NATURE OF MOVEMENT

Now let us recapitulate what we've got so far. We have been arguing that short answers to *wh*-questions are to be considered as a case of phonological reduction—the answer constituent, which corresponds to the *wh*-phrase in the question sentence, is assigned [+F] and is left undeleted when TP containing it is deleted in PF. This answer constituent [+F] is subject to movement in covert syntax to SpecFP. Here I would like to establish that this movement proceeds in successive-cyclic fashion, and this argument crucially involves the local nature of anaphor binding.

It has been observed, since Ueda (1986), Nakamura (1989), etc., that *zibun-zisin* 'self-self' is a reflexive anaphor of Japanese, which requires local binding. Thus, in the following sentence, the referent of the reflexive anaphor is locally determined.

(37) Butyoo$_i$-wa [syatyoo$_j$-ga zibun-zisin$_{*i,j}$-o simei-suru to] omot-te ita.
manager-Top president-Nom himself-Acc appoint that thought had
'The manager had thought that the president would appoint himself.'

On the normal pronunciation of this sentence, the reflexive anaphor can only be understood as referring to the subject of the embedded clause. Sentences like these have been used to establish the anaphoric nature of *zibun-zisin* in the literature, such as Aikawa (1993).

In light of this, consider the following dialogue, consisting of a *wh*-question and a short answer to it.

(38) a. Butyoo$_i$-wa [syatyoo$_j$-ga dare-o simei-suru to] omot-te ita no?
manager-Top president-Nom who-Acc appoint that thought had Q
'Who had the manager thought that the president would appoint?'

b. Zibun-zisin$_{i,j}$-o desu.
himself-Acc Cop
'Himself.'

Short answer (38B), unlike the reflexive anaphor in (37), can be ambiguous, allowing the reflexive to be bound by the matrix subject.

This fact can be taken as indicating that the source of the short answer (38B) is not (37). Rather, the reflexive anaphor in the source sentence of (38B) is assigned [+F], which makes it move to SpecFP in LF. This movement at LF is successive cyclic, so the reflexive anaphor stops at Spec of the complement clause, position X as in the following, on its way to FP.

(39) [$_{FP}$ [. . . manager$_i$ . . . [$_{CP}$X [$_{TP}$ president$_j$ . . . anaphor$_{[+F]}$ . . .]]]]

It is when the anaphor is placed in position X that the anaphor can be locally bound by the matrix subject, which accounts for the presence of the matrix subject interpretation of the anaphor.

Once again, the fact that the reflexive anaphor in (38B) can be bound by the matrix subject is an important piece of evidence that movement to SpecFP in LF is involved in the derivation of short *wh*-answers.

SHORT VS. NOT-SO-SHORT ANSWERS AND THE RELATIVE CLAUSE ISLAND

The discussion in the previous subsubsection provides a very important basis for our analysis of short and not-so-short answers to *wh*-questions, and it gives a basis for our argument against the idea that a short answer is derived by deletion from a not-so-short answer.

Now let us consider the following sentence.

(40) Naoya-wa [keisatu-ga [zibun-zisin-ni okane-o okut-ta otoko]-o taiho-si-ta to]
Naoya-Top police-Nom himself-Dat money-Acc send-Past man arrest-Past that
omotta.
think-Past
'Naoya thought that the police had arrested the man who had sent some money to himself.'

The dominant interpretation of this sentence, on its normal pronunciation, is that on which the reflexive anaphor is bound by the man who sent money. That is to say, the reflexive anaphor must be bound within the relative clause.[8]

Now, in light of this, let us consider the following dialogue, where (41A) is a *wh*-question parallel to (40) except the anaphor is replaced by a *wh*-phrase, (41B) is a short answer to (41A), and (41B′) is a not-so-short answer to (41A).

(41) A. Naoya$_i$-wa [keisatu-ga [dare-ni okane-o okut-ta otoko]$_j$-o taiho-si-ta to]
Naoya-Top police-Nom who-Dat money-Acc send-Past man arrest-Past that
omotta no?
think-Past Q
Lit. 'Naoya thought the police had arrested the man who had sent some money to whom?'

B. Zibun-zisin$_{i/j}$-ni desu.
himself-Dat Cop
'To himself.'

B′. [Zibun-zisin$_{*i/j}$-ni okane-o okut-ta otoko]$_j$-o desu.
himself-Dat money-Acc send-Past man Cop
'The man who sent money to himself.'

Given this dialogue, there is a clear, and I think dramatic, difference between the short answer (41B) and the not-so-short answer (41B′). And this difference indicates that short answers and not-so-short answers are derived in different ways, instead of the former being derived from the latter by deletion.

The reflexive anaphor in the short answer (41B) behaves differently from the reflexive anaphor in (40) in that the anaphor allows ambiguity, so that it allows the matrix subject to be

[8] Some speakers appear to accept the reading on which the reflexive is bound by the matrix subject. I discuss this in footnote 9.

its binder, in addition to the reading on which the anaphor is bound within the relative clause, bound by the man who sent money.

The reflexive anaphor in the not-so-short answer (41B′), on the other hand, allows only the reading on which it is bound within the relative clause, viz. by the man who sent money, and does not allow the reading on which it is bound by the matrix subject, on a par with the behavior of the reflexive anaphor in (40).

This is a very straightforward piece of evidence that the short answer (41B), which allows ambiguous interpretation, cannot be derived from the not-so-short answer (41B′) by deletion, for the latter does not have the ambiguous interpretation that the former does.

The analysis proceeds this way. Take the short answer (41B). Here, the reflexive anaphor is assigned [+F], and moves to SpecFP in the covert syntax. Since this movement is successive cyclic, the anaphor stops at SpecCP, the position designated as X in the diagram.

(42) $[_{FP}$ $[\ldots \text{Naoya}_i \ldots [_{CP} X$ $[_{TP} \ldots [_{RelCl} \ldots \text{anaphor}_{[+F]} \ldots] \ldots]]]]$

It is when the anaphor is placed in X that it has the chance of being bound by the matrix subject. This accounts for the interpretation on which the anaphor is bound by the matrix subject *Naoya*. The other reading on which the anaphor is bound by the man who sent money is captured by the presence of a copy (trace) of the anaphor within the relative clause, for there is a variable bound by the relative clause operator, and this variable is in a position locally c-commanding the anaphor.

Now let us turn to the not-so-short answer (41B′). In this, the relative clause containing the anaphor is assigned [+F], so the relative clause has to move as a whole (large scale pied-piping).

(43) $[_{FP}$ $[\ldots \text{Naoya}_i \ldots [_{CP} X$ $[_{TP} \ldots \boxed{[_{RelCl} \ldots \text{anaphor}\ldots]_{[+F]}} \ldots]]]]$

But this trip brings along the local antecedent of the anaphor, viz. the variable bound by the relative clause operator. Therefore, even when the relative clause stops at the position designated as X in the diagram, the matrix subject *Naoya* is unable to serve as the local binder of the anaphor. This accounts for the absence of the interpretation on which the anaphor is bound by the matrix subject in the not-so-short answer (41B′).[9]

4. Fragments/Stripping: Move and Delete

4.1 Asymmetries again

In this section, we discuss the type of fragment answers in Japanese which we observed in section 1. were sensitive to island effects. This type of fragment was illustrated by (1), repeated here.

(1) Keisatu-wa [Mari-ni itazura-denwa-sita otoko]-o taiho-sita.
police-Top Mari-Dat phony-phone-made man-Acc arrest-Past
*Hitomi-ni ∅-mo da.
Hitomi-Dat also be
'The police arrested the man who made obscene calls to Mari, and to Hitomi, too.'

[9] Some speakers accept the interpretation of the reflexive anaphor in (40) as bound by the matrix subject, *Naoya*. My account of this fact is that *zibun-zisin* can be subject to movement to SpecFP at LF. This is especially likely when the anaphor is pronounced high in pitch. If this is the case, the anaphor, with feature [+F] may undergo covert movement as indicated in (42), so that it may be bound by the matrix subject in the position designated as X on its way to SpecFP.

This type of fragment, which we hypothesize derives from stripping, viz. focus-movement followed by deletion, is in marked contrast to *wh*-fragments, illustrated by (4), and sluicing, illustrated by (2).

(4) A. Keisatu-wa [dare-ni itazura-denwa-sita otoko]-o taiho-sita no?
police-Top who-Dat phony-phone-made man-Acc arrest-Past Q
'Did the police arrest the man who made obscene calls to who?'

B. Hitomi-ni ∅ da yo.
Hitomi-Dat Cop
'To Hitomi.'

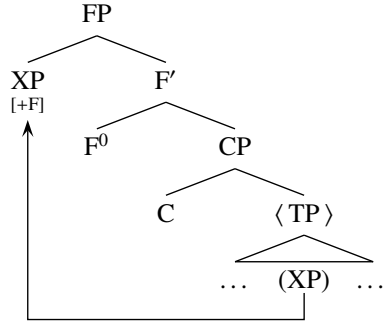
(2) Keisatu-wa [dareka-ni itazura-denwa-sita otoko]-o taiho-sita ga,
police-Top someone-Dat phony-phone-made man-Acc arrest-Past but
boku-wa dare-ni ka kiite i-nai.
I-Top who-Dat Q hear be-Not
'The police arrested the man who made obscene calls to someone, but I haven't heard to whom.'

4.2 Movement in stripping

I argue in the present section that what distinguishes stripping from sluicing and *wh*-answer fragments is that, while the latter involve Overt QR prior to Spell-Out, stripping involves Focus Movement prior to Spell-Out.

To make this proposal more concrete, I hypothesize that (i) the constituent that gets focalized (and remains undeleted) is assigned [+F] in the numeration, so that it enters syntactic derivation with this feature; and (ii) the constituent thus introduced in the derivation with [+F] moves to SpecFP prior to Spell-Out. Stripping, as argued in Merchant (2004), is a deletion of CP at PF.

(44)



If this much is right, the island-sensitivity of stripping is what is expected on the present analysis, if we accept the traditional view that the island-constraints are conditions on feature-driven movement in overt syntax. Then the ungrammaticality of (1) is simply attributed to the movement of *Hitomi-ni* out of the relative clause island prior to Spell-Out.

(45) Keisatu-wa [Hitomi-ni itazura-denwa-sita otoko]-o taiho-sita.
police-Top Hitomi-Dat phony-phone-made man-Acc arrest-Past
'The police arrested the man who made obscene calls to Hitomi.'

Notice that things are not as straightforward as this on Merchant's (2004) analysis, which argues that deletion eliminates (some) island violations. On Merchant's (2004) analysis it is crucial that what is deleted in (44) is TP because if focus movement is involved which comes out of an island there must be an offending trace in SpecCP to 'unsave' the derivation. In fact, we are going to argue below that what must be deleted in the derivation of stripping is CP, which would eliminate the crucial intermediate trace that makes stripping different from sluicing in Merchant's (2004) analysis.

4.3 Move to SpecFP

It is important to note, once again, that simply assuming that *Hitomi-ni* is moved out of the relative clause is not enough to account for the unacceptability of (1), for if the movement as shown in (45) is scrambling, the result is not bad enough.

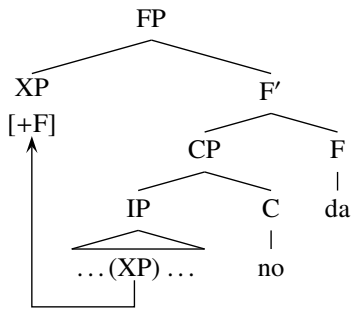
(46) Hitomi-ni Keisatu-wa [itazura-denwa-sita otoko]-o taiho-sita.
Hitomi-Dat police-Top phony-phone-made man-Acc arrest-Past
'The police arrested the man who made obscene calls to Hitomi.'

Ishii (1997) has argued that island-restriction on scrambling is less stringent than that on other instances of A′-movement, of which Focus Movement is an instantiation. In section 2., we pointed out that Overt QR is assimilated with scrambling. The distinction that we suggested there was that, while Focus Movement is a feature-driven movement, Overt QR is a movement motivated by the inherent nature of what undergoes movement—the *wh* 'opts for' a wider domain of interpretation. Our hypothesis is that Subjacency is a condition on feature-driven movement. Therefore it is necessary to demonstrate that the focused constituent involved in the derivation of stripping moves to a specific position, not merely by scrambling.

It is instructive in this connection to consider the analysis of focus-related constructions by Hiraiwa and Ishihara (2002, 2010). Hiraiwa and Ishihara (2002, 2010) hypothesize that focus-related constructions start out with the *No-da* construction, in which the complementizer *no* occupies C, and the copula *da* occupies F, the head of F(ocus)P. A focalized constituent in IP may stay in-situ before Spell-Out, in which case it receives P-focalization in PF and moves covertly to SpecFP at LF.

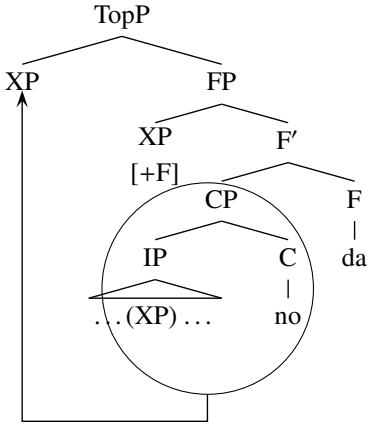
Alternatively, a focus constituent can move overtly, in which case its target is SpecFP.

(47)



This structure never realizes as is — if it did, the result would be indistinguishable from scrambling, at least as far as pronunciation is concerned. Subsequent to movement to SpecFP, one of two things must happen. One possibility is that CP (remnant of CP) moves to SpecTop, a case of topicalization.

(48)



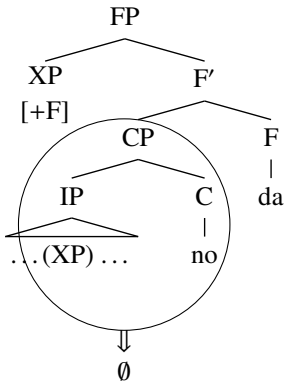
This yields a cleft construction. Notice at this point that while (1) cannot be considered to derive from (46), a structure derived by scrambling, the following cleft sentence involving a relative clause island violation is very low in grammaticality.

(49) *Keisatu-ga [itazura-denwa-sita otoko]-o taiho-sita no wa
police-Nom phony-phone-made man-Acc arrest-Past Comp Top
Hitomi-ni da.
Hitomi-Dat be
'It was to Hitomi that the police arrested the man who made obscene calls to.'

Our claim is that the real source of (1) is a structure obtained by movement to SpecFP as indicated in (47). But since such a structure is never pronounced in Japanese, we consider a cleft construction like (49) as the best proximate to a source structure for stripping.

Now, if instead of moving CP as in (48), we deleted CP in (47), the result we get is stripping.

(50)



We hold onto the view that this represents the derivation of fragments via stripping. Crucially, notice that there is no effect of island-repair of the type discussed in the current literature, e.g. Merchant (2004), Fox and Lasnik (2003), etc., as far as the relevant facts in Japanese are concerned—deletion as in (50) does not save the case of island-violation.

5. Contrasting Fragments

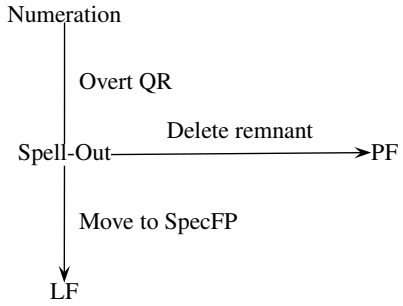
So far we have considered three types of fragments in Japanese: sluicing, *wh*-answers, and stripping. We have seen that sluicing and *wh*-answers are free from the relative clause island effect, while stripping is subject to the island effect.

Our account for this asymmetry is that sluicing and short *wh*-answers are derived by deletion in such a way that the domain containing the *wh*-constituent and answer constituent, moved by Overt QR and assigned feature [+F], is deleted in PF except the constituent assigned [+F]. After Spell-Out, the constituent assigned [+F] moves to SpecFP. Since this is an instance of covert movement, it is free from island effects. Therefore, sluicing and short *wh*-answers are insensitive to island effects.

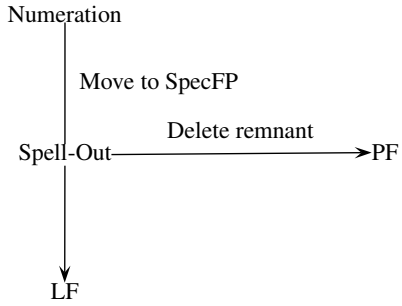
On the other hand, stripping is derived in such a way that a constituent assigned [+F] (from the Numeration on) is moved to SpecFP by Spell-Out and the remnant domain of this movement is deleted in PF. Stripping is sensitive to island effects because overt movement is subject to island constraints.

The state of affairs just described can be depicted in the following charts.

(51) **Sluicing, short *wh*-answers:**



(52) **Stripping:**



In the following, I am going to discuss the contrasting behaviors of the two types of fragments in light of negative polarity items (NPI) and sluicing in Turkish.

5.1 NPI

NPI IN STRIPPING

Merchant (2004) discusses the distribution of negative polarity items (NPIs) in fragments. As (53) shows, the NPI *any* is unable to appear as a short answer.

(53) A. What didn't Max read?
B. *Anything.

Merchant discusses this issue as part of his argument for the derivation of short answers from left-dislocation, for NPIs are unable to appear in a left-dislocated position in English.

(54) *Anything, Max didn't read.

In this respect, NPIs in Japanese appear to behave differently. We use *sika*, whose best approximate in English would be 'but' as in 'He eats nothing *but* hamburgers.'

(55) A. Kono neko-wa sake-sika tabe-nai no?
this cat-Top salmon-sika eat-not Q
Lit. 'This cat eats nothing but salmon?' or 'Does this cat eat only salmon?'

B. *Iya, maguro-sika desu.
no tuna-sika Cop
Intended: 'No, only tuna.'

Although (55B) is as bad as (53B), left-dislocation of the same NPI is not so bad.

(56) Maguro-sika kono neko-wa tabe-nai no desu.
tuna-sika this cat-Top eat-not C Cop
Lit. 'This cat eats nothing but tuna.'

We take this as due to the equivocal status of left-dislocation as seen in (56). That is, left-dislocation in this example may either be focus-movement or scrambling, and it has been claimed by Ishii (1997) that the restriction on scrambling is less strict than on canonical varieties of A′-movement, of which we consider focus-movement is an instantiation. It is highly likely that the acceptability of (56) is due to this aspect of scrambling. On the other hand, the following cleft construction is very low in acceptability.[10]

(57) *Kono neko-ga tabe-nai no wa maguro-sika desu.
this cat-Nom eat-not C Top tuna-sika Cop
'What this cat does not eat is but tuna.'
Intended: 'What this cat eats is nothing but tuna.'

We take this as a strong piece of evidence that the focus element, i.e. the element in SpecFP, which 'surfaces' only in cleft constructions, is what the fragment of stripping derives from.

However, we cannot say that NPIs cannot appear in SpecFP, for we do have sentences like the following, in which the NPI *sika*-X presumably appears in SpecFP in LF, and the bold type indicates emphasis or focus intonation.

(58) Kono neko-wa **maguro sika** tabe nai no da.
this cat-Top tuna sika eat not C Cop
'It is that this cat eats nothing but **tuna**.'

If this much is true, what we must say is not just that the NPI *sika*-X may not appear in SpecFP — one possible way of distinguishing (57) from (58) is to say that it is the 'timing' of placing NPI in SpecFP that is at stake in such a way that certain elements may not move to SpecFP in overt syntax.

NPI IN SLUICING AND *wh*-ANSWERS

This is consistent with the analysis that we have been developing about fragments in Japanese — while stripping derives via overt movement of a focused element to SpecFP (Move and Delete), sluicing and answers to *wh*-questions derive by Overt QR and TP-deletion except the focused element in PF, followed by movement of the focus to SpecFP in LF.

Thus, the following example, which involves sluicing in which the remaining *wh*-phrase has the *sika*-particle attached, is high in acceptability.

(59) Kono neko-wa aru sakana sika tabe nai rasii ga, dono syurui sika ka omoi-dase
this cat-Top certain fish sika eat not I hear but which kind sika Q remember
nai.
not
'I hear this cat eats nothing but a certain kind of fish, but nothing but which kind, I don't remember.'

[10] Facts like this are also discussed in Kizu (2005).

In our analysis the acceptability of this sentence is correlated with the fact that scrambling as seen in (56) is high in acceptability.

The NPI constituent moves to SpecFP on its way in covert syntax, via SpecNegP to check the Neg-feature of *sika*, and SpecCP to check the *wh*-feature. Viewed this way, the ungrammaticality of (57) can be accounted for in reference to movement to SpecNegP in overt syntax, which is forced on the way to the movement to SpecFP. The analysis, then, is attributable to the constraint against movement to SpecNegP in overt syntax.

The following dialogue consisting of a *wh*-question and its fragment answer is higher in acceptability than the dialogue we saw above in (55).

(60) A. Kono neko-wa nani-sika tabe-nai no?
this cat-Top what-sika eat-not Q
Lit. 'This cat eats nothing but what?' or 'Only what does this cat eat?'

B. ?Maguro-sika desu.
tuna-sika Cop
Intended: 'Only tuna.'

This is consistent with the analysis developed here, where answers to *wh*-questions are treated on a par with sluicing, in such a way that TP containing the answer-constituent, assigned [+F] in the derivation, is deleted except the latter in PF. The constituent containing the NPI *sika* is moved to SpecFP via SpecNegP in the covert syntax.

5.2 Sluicing in Turkish

Ince (2007) presents an argument against analysing sluicing as 'elliptical cleft' on the grounds that, in Turkish, the pivot (focus) of a cleft structure can occur only in the nominative case, whereas the case of a sluiced *wh*-phrase matches in case with its correlate.

(61) a. Hasan-∅ kim-den borç al-dı-∅?
Hasan-Nom who-Abl debt take-Past-3s
'Who did Hasan borrow money from?'

b. Hasan-ın borç al-dı-ğ-ı kim-∅/*den?
Hasan-Gen debt take-Past-C-Pos3s who-Nom/Abl
'Who is it that Hasan borrowed money from?'

(62) a. Hasan-∅ biri-nden borç al-dı-∅.
Hasan-Nom someone-Abl debt take-Past-3s
'Hasan borrowed money from someone.'

b. Kim-den/*∅?
who-Abl/Nom
'Who from?'

My interpretation of the matter is that the nominative case in these examples is the focus marker: the mark of a constituent that has moved to SpecFP by Spell-Out. Thus, in the formation of clefting, the pivot constituent has to move to SpecFP and gets the nominative case. In sluicing, the *wh*-constituent does not move by Spell-Out and stays in-situ, just as in my characterization of sluicing in Japanese.

All these are consistent with my characterization of clefting and sluicing in Japanese. The difference is that while Japanese does not allow the immediate output of move to SpecFP to be

pronounced (either topicalization or deletion must follow), Turkish allows it to be pronounced as the nominative case.

As expected, sluicing in Turkish is insensitive to island-effects, as the following example, adapted from Ince (2009) indicates.[11]

(63) A. Kimse [arkadaş-lar-ın-dan belli bir-in-in bak-tığı] bi(r) köpeğ-i tedavi
no one friend-Plu-3Poss-Abl certain one-Poss-Gen look-after one dog-Acc treatment
ediyor.
doing
'No one is treating a dog that a certain friend of his takes care of.'

B. Hangi arkadaş-in-in?
which friend-3Poss-Gen
'Which friend of his?'

This example, which shows that sluicing out of a relative clause island is possible, is particularly nice in that it indicates a connectivity effect with a pronominal element in the sluice that is bound by the matrix subject quantifier in the antecedent clause. Therefore, this instance of sluicing should not be a case of pseudo-sluicing.

6. Comparison with Merchant (2004)

6.1 Island-repair by deletion

Merchant (2004) develops an analysis of the problem posed by sentences like (64), in which he invokes the PF theory of islands.

(64) They hired someone who speaks a Balkan language — guess which!

In this theory, island violations are considered to be due to properties of pronounced syntactic structure, not to constraints on derivation or representations of LF.

According to this theory, intermediate traces created by crossing syntactic islands are defective and cannot remain in a structure that gets pronounced. These traces are assigned *, a PF-uninterpretable feature. Alternatively, * may be assigned to XPs that form islands, as in Fox and Lasnik (2003). If ellipsis can apply, the structure which contains the * feature(s) are eliminated from the PF object.

As Merchant (2004) proposes (see also Fox and Lasnik (2003), Merchant (2001)), this analysis not only accounts for (64), but also captures the well-known asymmetry between sluicing and VP-ellipsis:

(65) They want to hire someone who speaks a Balkan language, but
a. I don't remember which.
b. *I don't remember which (language) they do.

Assuming that *wh*-movement targets every intermediate maximal projection along the way, deletion of TP (sluicing) and *v*P (VP-ellipsis) are shown to have different consequences.

(66) $\ldots$ which$_i$ C$_{[+E]}$ [$_{TP}$ $*t''_i$ [$_{TP}$ they (do) [$_{vP}$ $*t'_i$ [$_{vP}$ want to hire [$_{DP}$someone $\ldots t_i$]]]]]

vP-deletion leaves $*t''_i$

TP-deletion deletes all *-traces

[11] Thanks to Atakan Ince for providing me with this modified example.

In Merchant's (2004) system, the feature [+E], which has the phonological function of rendering TP on the righthand side unpronounced, has the feature-composition [*u* wh*, *u* Q*], which makes it compatible only with C [wh, Q].

On the other hand, Merchant (2004) observes that fragments which arise from stripping in English are sensitive to island effects.

(67) A. Microsoft hired a linguist who is on good terms with Chomsky.
B. *With Bresnan, too.

Merchant (2004) accounts for the ungrammaticality of (67B) by hypothesizing (i) that stripping arises from focus-movement, movement of a constituent that is to remain as fragment to SpecFP, whose head F selects CP, followed by deletion of TP, and (ii) that E is of the featural constitution [*u*C*, *u*F], which ensures that it must occur local to C, but need not move to F to check *u*F, since Agree can apply.

Along these lines, Merchant (2004) posits the following structure for the fragment derived via stripping (67).

(68) $[_{FP}$[with Bresnan]$_i$ $[_{CP}$ $*t'_i$ $\underset{[+E]}{C}$ $\underbrace{[_{TP}\text{MS wants to hire } [_{DP}\text{a linguist} \ldots t_i \,] \,] \,] \,]}_{\text{TP-deletion leaves } *t'_i}$

Assuming, with Merchant (2004), that focus-movement is successive-cyclic and that E [*u*C*, *u*F] is located in C, deletion of TP leaves an offending trace $*t'_i$ in SpecCP, which causes the derivation to crash.

6.2 Problems

Merchant's (2004) analysis, as described in the previous subsection, crucially hinges on the structural position that the relevant element targets before deletion takes place—a *wh*-phrase in sluicing, which targets SpecCP, a focus element in stripping, which targets SpecFP.

One immediate question that arises in light of the findings of the present article is, how can this analysis cope with short *wh*-answers in Japanese? The point about short *wh*-answers in Japanese discussed in the present article is that they are insensitive to island effects. Therefore, if we adopt Merchant's (2004) framework here, the relevant facts about short *wh*-answers must be accounted for in terms of island-repair by deletion. However, in order for this line of analysis to work, we must assume that the answer constituent in short *wh*-answers must move to SpecCP, not SpecFP, before Spell-Out, for if the answer constituent were to move to SpecFP, it would be indistinguishable from the relevant structure obtained for stripping, for which island-repair is supposed not to work.

I cannot think of any evidence that movement of the answer constituent stops at SpecCP, for there is no feature to motivate this movement that I can think of—nor is there any reason this constituent cannot move further to SpecFP. In fact, in our analysis answer constituents are assigned [+F], so the derivation would crash if they do not move to SpecFP.

The same is true about sluicing. In our analysis it is feature [+F] assigned to *wh*-phrases that motivates Delete in-situ at PF and movement of *wh*-phrases to SpecFP (via SpecCP) in the covert syntax. But if *wh*-phrases did move to SpecFP, there will be an offending trace left in SpecCP after TP is deleted.

One way to get around with all these difficulties is to assume that the relevant deletion involved in these ellipsis processes is CP-deletion, rather than TP-deletion as assumed by Merchant (2004). Then CP-deletion would delete the *-trace that remains in SpecCP, which makes

island-repair available for sluicing and *wh*-answers. However, this move will also make island-repair available for stripping, which we have agreed with Merchant (2004) is sensitive to islands, thus eliminating the necessary distinction.

We take all this as showing that putting the blame on how much is deleted for the different behaviors of different processes of ellipsis with respect to islands is not on the right track. The real distinction should be between what happens in overt syntax, which is subject to island constraints, and what happens in covert syntax, which is free from island constraints. This also allows us to have a straightforward view of island constraints as constraints on movement (derivation), while Merchant's (2004) analysis forces one to consider islands as constraints on representation after PF-deletion.

More important is the fact that in none of the cases considered in the present article have we seen deletion repair. Recall that sluicing and short *wh*-answers have been shown to be free from island-effects, but we have also seen that the source structures involving island-violations were tolerable. In other words, the island-insensitivity of sluicing and short *wh*-answers has nothing to do with deletion—the relevant fragment expressions have been seen to be as good as their source structures without deletion.

On the other hand, deletion has been seen to be incapable of saving the source of stripping which involves an island-violation. Focus Movement in violation of the island constraint has been seen to be ungrammatical with or without deletion. Thus, we must conclude that there is nothing for deletion to repair, as far as relevant facts in Japanese are concerned.

7. Conclusion

The present article has been an examination of the nature of three kinds of fragments with respect to island-sensitivity in Japanese: sluicing and short answers to wh-questions, which are free from island effects, and stripping, which is sensitive to islands. We have attempted to show that the asymmetries with respect to these three kinds of fragments are to be accounted for in terms of the different ways in which the fragments are derived: sluicing and wh-fragment answers are derived by Overt QR and deletion, while stripping is derived by Focus Movement in overt syntax and Delete. Further, Focus Movement applies in covert syntax in the derivation of sluicing and short *wh*-answers.

Overt QR, being motivated by the inherent nature of *wh*, which 'opts for' a wider scope, is not constrained by Subjacency, on the assumption that the latter is a constraint on feature-driven movement in overt syntax. Neither is Focus Movement in covert syntax constrained by Subjacency, as has been acknowledged since Huang (1982). This accounts for the island-insensitivity of sluicing and short *wh*-answers.

One of the highlights of the present article is the findings about *wh*-answers. A *wh*-question with a *wh*-phrase inside a relative clause allows two types of answers: a short answer which fills in the value of the *wh*-phrase in the question, and a not-so-short answer in the form of the relative clause in the question modulo the *wh*-phrase is replaced by an answer constituent. The present analysis argues that the two types of answers arise from distinct derivations (from phonologically distinct sources), which argues against Nishigauchi (1986, 1990) in which the short answer is claimed to derive from the not-so-short answer by deletion.

This analysis has a further consequence that island-repair, a crucial notion employed by Merchant (2004) to account for the island-insensitivity of sluicing in English and other languages, is not a viable device to account for the relevant phenomena in Japanese. As far as the relevant data in Japanese are concerned, grammatical fragments have grammatical source structures, ungrammatical fragments have ungrammatical source structures. Nothing for dele-

tion to repair.

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